

MIL-D-12491D
29 June 1978
SUPERSEDING
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MILITARY SPECIFICATION

DEGREASERS: SOLVENT, TANK IMMERSION-TYPE

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers tank-immersion, cold solvent degreaser with a safety cover and circulating solution filter.

1.2 Classification. The classification of the tank-immersion degreasers shall be as follows:

- Type I - Pneumatic solution agitation.
- Type II - Hydraulic solution agitation.
- Type III - Oscillating platform agitation.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this specification to the extent specified herein:

FSC 4940

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Mobility Equipment Research and Development Command, ATTN: DRDME-DS, Fort Belvoir, VA 22060 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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SPECIFICATIONS

FEDERAL

- | | |
|-----------|---|
| J-C-580 | - Cord, Flexible, and Wire, Fixture, (Electrical, 0- to 600-Volt Service). |
| W-C-596 | - Connector, Plug, Electrical; |
| | Connector, Receptacle, Electrical. |
| CC-M-1807 | - Motor, Alternating-Current, Fractional and Integral Horsepower, (500 hp and Smaller). |
| QQ-S-781 | - Strapping, Steel, and Seals. |
| PPP-B-601 | - Boxes, Wood, Cleated-Plywood. |
| PPP-B-636 | - Boxes, Shipping, Fiberboard. |
| PPP-P-40 | - Packaging and Packing of Hand Tools. |
| PPP-T-60 | - Tape: Packaging, Waterproof. |

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| MIL-P-116 | - Preservation-Packaging, Methods of. |
| MIL-P-514 | - Plates, Identification, Instruction and Marking, Blank. |
| MIL-T-704 | - Treatment and Painting of Materiel. |
| MIL-C-4109 | - Coupling Assembly, Low Pressure, Air Hose, Quick-Disconnect. |

STANDARDS

MILITARY

- | | |
|--------------|--|
| MIL-STD-105 | - Sampling Procedures and Tables for Inspection by Attributes. |
| MIL-STD-129 | - Marking for Shipment and Storage. |
| MIL-STD-130 | - Identification Marking of US Military Property. |
| MIL-STD-1188 | - Commercial Packaging of Supplies and Equipment. |

(Copies of specifications and standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

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2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

A366 -- Cold-Rolled Carbon Steel Sheets, Commercial Quality.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

NATIONAL FIRE PROTECTION ASSOCIATION

NFPA No. 70 -- National Electric Code.

(Application for copies should be addressed to the National Fire Protection Association, 60 Batterymarch Street, Boston, MA 02110.)

(Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

3. REQUIREMENTS

3.1 Description. The degreaser shall consist of a cabinet to serve as a solvent reservoir, with base or legs, and shall have a safety closing cover. The degreaser shall have a soak tank or carrier platform with removable grating, and be equipped with an electrically powered constant flow circulating pump with replaceable cartridge filter, with flexible metal hose and nozzle, or system to provide mechanical agitation with solvents at room temperature.

3.2 First article. The contractor shall furnish a degreaser for examination and testing within the time frame specified (see 6.2), to prove, prior to starting production, that his production methods and choice of design detail will produce degreasers that comply with the requirements of this specification. Examination and tests shall be as specified in Section 4 and shall be subject to surveillance and approval by the Government (see 6.3).

3.3 Material. Material shall be as specified herein. Material not specified shall be selected by the contractor and shall be subject to all provisions of this specification (see 6.6).

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3.3.1 Steel. Unless otherwise specified, sheet steel shall conform to ASTM A366.

3.4 Safety. All parts energized electrically shall be insulated, guarded, and properly grounded. Moving parts shall be designed or guarded to eliminate hazard to personnel. Protective devices shall not impair the operating functions.

3.4.1 Degreaser. The degreaser shall meet the requirements of NFPA No. 70, (see 6.4).

3.5 Maintainability. All major assemblies and installed attachments shall be accessible for maintenance, repair, and replacement without the removal of other major assemblies and installed attachments not normally removed. Covers or plates which must be removed for component adjustment, repair, replacement, or maintenance shall be equipped with quick-disconnect fastenings. Drain outlets shall be located for complete drainage and accessibility. Provisions shall be made to permit the use of receptacles for collecting drainage.

3.6 Motor. Unless otherwise specified, the motor shall conform to CC-M-1807 Type I, Class 1, Style A, Kind 1 or 3 (as applicable to the type degreaser specified), Style A1. The motor shall be equipped with overload protection and rated for continuous duty operations, and the machine shall operate from a 115 volt, 60 Hertz, single phase, alternating current source. Starting switches, or other devices capable of producing an electric arc during normal operations shall not be used. The motor shall be completely compartmented and isolated within the cabinet and vented to the outside of the cabinet, or located completely outside of the degreaser.

3.6.1 Cable. The motor shall be equipped with an electric cable conforming to J-C-580, Type SO, 14 AWG, 3 conductor. The cable shall be not less than 8 feet long and shall terminate in a 3-prong plug conforming to W-C-596/13. The cable shall be provided with straining relief clamps to prevent a mechanical stress on the cable from being transmitted to the terminals of the plug or interior wiring. The ground conductor of the cable shall be securely attached to the motor frame and to the ground connection of the plug.

3.6.2 Switch. The motor shall be equipped with an "off-on" switch, located in the motor compartment and accessible from the outside of the cabinet within access of the operator. The switch shall have a current rating of not less than 1-1/2 times the full load current rating of the motor. The switch shall be clearly and permanently marked to indicate the "on" and "off" positions.

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3.6.3 Wiring. All wiring shall meet the requirements of NFPA No. 70. All wiring and electrical components shall be located a minimum of 18 inches above the ground surface.

3.7 Filter. The degreaser shall be equipped with a replaceable cartridge type filter rated at 50 microns to clean the solution passing through the flush hose. The filter shall be located above the maximum level of the solution in a position where it can be serviced without draining the tank.

3.8 Accessories. Each degreaser shall be furnished with the following accessories as specified.

3.8.1 Parts basket. Unless otherwise specified, two rectangular parts baskets shall be furnished with the bottom and sides of the baskets constructed of 1/2-inch mesh, expanded metal not less than 0.050 inch thick and shall be designed to fit in the soak tank. The ends shall be constructed of sheet metal not less than 0.050 inch thick and shall be provided with a lifting handle on each end, extending above the maximum level of the solution.

3.8.2 Drain shelf. A drain shelf that fits over the top edge of the cabinet end to give external drainage area for the baskets and parts shall be furnished. Solution drainage shall be back into the tank. The drain shelf shall permit unobstructed closing of the cover when the shelf is in place and the parts baskets resting thereon.

3.8.3 Brush. One fiber- or nylon-bristle, parts-cleaning brush shall be furnished with a rack or holder to hold the brush when not in use.

3.9 Identification marking. The degreaser shall be identified in accordance with MIL-STD-130. The marking shall be applied to the degreaser on plates conforming to MIL-P-514, Type I, Style 1, Composition C, of Type I, Grade A, Class 1 material. Plates shall be attached by screws, bolts, or rivets in a conspicuous protected location.

3.10 Instruction plates. Each degreaser shall be equipped with instruction plates or diagrams, including warnings and cautions, describing any special or important procedures to be followed in assembling, operating, or servicing the degreaser. Instruction plates shall conform to MIL-P-514, Type III, Composition C, of Type I, Grade A, Class 1 material. Plates shall be attached by screws, bolts, or rivets in a conspicuous protected location. The degreaser shall be conspicuously marked or labeled as shown below in easily legible type, providing typographic layout, or color contrast with any other printed matter on the plate:

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CAUTION

COMBUSTIBLE

KEEP AWAY FROM HEAT AND OPEN FLAME

KEEP CLOSED WHEN NOT IN USE

USE WITH ADEQUATE VENTILATION

Use only cleaning solvents that have a flash point of 100° F (37.8° C) or higher.

For guidance contact Industrial Hygienist before filling tank.

3.11 Treatment and painting. The portions of the degreaser normally painted shall be cleaned, treated, and painted in accordance with MIL-T-704, Type A, color as specified.

3.12 Technical publications. Such technical publications as are specified shall be furnished.

3.13 Repair parts and maintenance tools. Such repair parts and maintenance tools as are specified shall be furnished.

3.14 Items to be furnished with degreaser. No shipment of degreasers shall be made unless repair parts, tools, technical publications, and accessories are included with the shipment or unless approval for shipment of the degreasers without such items has been received from the contracting officer.

3.15 Type I degreaser.

3.15.1 Type I degreaser pneumatic solution agitation. The Type I degreaser shall have a capacity of not less than 20 gallons and not more than 40 gallons of solution. A soak tank shall be provided and equipped with an air manifold and connections for dispersing compressed air. Provision shall be made to allow overflow of solution and sludge to the main reservoir of the cabinet. A barrier filter shall remove large solids before solution enters the pump and passes through the cartridge filter. The degreaser shall be provided with a quick disconnect air hose coupling conforming to MIL-C-4109, type as applicable, Class A, Style 1, size 1/4 NPT and a connection conforming to type as applicable Class A, Style 1, size 1/4 NPT for direct connection to an external air supply. An air control valve shall be provided to direct air through the soak tank air agitation device.

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3.15.2 Pump. The pump for the Type I degreaser shall have a direct drive electric motor and shall be designed to handle fluids containing abrasive particles. Bearings and seals shall be located above the maximum level of the solution. The pump at the flush hose shall have a capacity of not less than 4 gpm delivered at the hose nozzle.

3.15.3 Base. The base shall be of sheet steel not less than 0.60 inch thick and shall be reinforced. The base shall be equipped with four antifriction-bearing, swivel-type casters which are impervious to oil and grease. The base and casters shall support the fully loaded degreaser when stationary or moving.

3.15.3.1 Load and shock. The degreaser shall show no evidence of deformation, breakage, or malfunction after being traversed over a 1-inch depression and moved up over a 15-degree slope 1 inch high, while filled with solution and a minimum of 150 pounds on each shelf, when tested in accordance with 4.5.2.3 (see Figure 1).

3.15.4 Work shelves. One or more work shelves shall be located above the maximum level of the solution but deep enough to minimize splashing. The shelves shall be removable or shall fold flat against the tank sides to give unobstructed access to the soak tank. The shelves shall each support 150 pounds without deformation.

3.15.5 Indicator light. Type I degreaser indicator light shall be of the glo-plug type so if broken it will not create a spark. The indicator light shall be of a type approved for the purpose intended, as determined by the Underwriters Laboratories. Approval shall be evidenced by the presence of the Underwriters Laboratories label. Underwriters Laboratories approval shall not absolve the contractor from complete compliance with the requirements of this specification.

3.15.6 Barrier filter. A barrier filter shall remove large solids before solution enters the pump and passes through the cartridge filter.

3.15.7 Cover. The Type I degreaser cover shall be of the fire-stop design. The cover shall be hinged to permit raising to a vertical position and shall hold in the vertical position by an automatic release device. The automatic release device shall be fused to hold the cover at 130° F but shall melt and release the cover at not more than 160° F. The cover shall be spring loaded or designed to assure positive closing when the release device is melted.

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3.15.8 Cabinet. The Type I degreaser cabinet shall be of sheet steel not less than .036 inch thick, be leakproof and act as a reservoir for the solution in addition to containing the soak tank, with removable sludge collection trays, work shelves, pump, flush hose, and controls.

3.15.9 Flush hose. The Type I degreaser flush hose shall be of flexible metal construction and shall contain no rubber or fabrics. The hose shall be sufficiently rigid to remain in any position placed by the operator. The hose shall be of sufficient length so that the flow of solvent will reach all sections of the tank. The nozzle shall deliver a stream of solution not less than 3/8 inch in diameter.

3.16 Type II degreaser.

3.16.1 Type II degreaser hydraulic solution agitation. The Type II degreaser hydraulic solution agitation shall have a capacity of not less than 40 gallons nor more than 80 gallons of solution. A separate and removable soak tank shall be provided and equipped with a manifold for agitation of the solution. Provision shall be made to allow overflow of solution and sludge to the main reservoir of the cabinet.

3.16.2 Pump. The pump for the Type II degreaser shall have a direct drive electric motor, and shall be designed to handle fluids with abrasive particles without damage. Bearings and seals shall be located above the maximum level of the solvent. The output for hydraulic solution agitation and flush hose in operation shall be a total capacity of not less than 60 gallons per minute (gpm), and shall direct a flow of solution of not less than 6 gpm through the flush hose.

3.16.3 Control valve. The control valve shall direct the pump output of solution either through the agitation manifold only or through the agitation manifold and through the flush hose simultaneously and shall be clearly and permanently marked to indicate the operation position.

3.16.4 Base. The base shall be as specified in 3.15.3 and 3.15.3.1.

3.16.5 Work shelves. The work shelves shall be as specified in 3.15.4.

3.16.6 Indicator light. The indicator light shall be as specified in 3.15.5.

3.16.7 Barrier filter. The barrier filter shall be as specified in 3.15.6.

3.16.8 Cover. The cover shall be as specified in 3.15.7.

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3.16.9 Cabinet. The cabinet shall be as specified in 3.15.8.

3.16.10 Flush hose. The flush hose shall be as specified in 3.15.9.

3.17 Type III degreaser.

3.17.1 Type III oscillating platform agitation. The Type III oscillating platform agitation degreaser shall be of the electric-motor-driven or air-cylinder-driven oscillating platform type at the option of the contractor. The platform shall be not less than 40 inches in length and not less than 20 inches in width. An air or hydraulically operated device shall be provided to lower the platform into the solution and raise the platform to the top of the degreaser. The cabinet shall have a capacity of not less than 40 gallons and not more than 80 gallons. The degreaser shall operate as specified when tested in accordance with 4.5.2.1.

3.17.1.1 Electric motor driven platform. The electric-motor-driven platform shall operate with a 4-inch stroke at a rate of not less than 60 or more than 70 rpm strokes per minute. The platform operating mechanism shall be clutched separately from the pump with the controls clearly and permanently marked.

3.17.1.2 Air cylinder driven platform. The air cylinder driven platform shall be provided with the necessary controls to vary the speed and stroke of the platform. The stroke shall be variable from 4 to 10 inches at not less than 18 to not more than 30 cycles per minute.

3.17.2 Pump. The pump for the Type III degreaser shall have a direct drive electric motor and be designed to pump fluids containing abrasive grit. Bearings and seals shall be located above the maximum level of the solution. The pump shall have a capacity of not less than 6 gpm.

3.17.3 Cabinet. The Type III degreaser cabinet shall be fabricated of sheet steel not less than .1350 inch thick and shall contain the carrier platform. The cabinet shall be leakproof and act as a reservoir for the solution. All motors, pump, and controls shall be mounted on the outside of the cabinet.

3.17.4 Cover. The Type III degreaser cover shall be fabricated of not less than .780 inch thick steel with reinforced body to resist distortion in the event of fire. The cover shall be hinged to permit raising to a vertical position. It shall be held in position by a column of air or hydraulic fluid. The automatic release device shall be fused to hold the cover at 130° F but shall melt at not more than 160° F and release column of air or hydraulic fluid thereby lowering carrier and closing cover automatically. The cover shall be spring loaded or under tension when in the open position to assure positive closing when the release device is melted.

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3.17.5 Base. The Type III degreaser base or legs shall be fabricated of not less than .1350-inch-thick steel and shall be capable of supporting the cabinet including solution and rated work load without deformation.

3.18 Workmanship. All parts, components and assemblies of the degreasers including castings, forgings, molded parts, stampings, bearings, seals, machined surfaces and welded parts shall be clean and free from sand, dirt, fins, sprues, pits, scale, flux, and other harmful extraneous material. All edges shall be rounded or beveled.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Component and material inspection. The contractor is responsible for insuring that components and materials used are manufactured, examined, and tested in accordance with referenced specifications and standards.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

- (a) First article inspection (see 4.3).
- (b) Quality conformance inspection (see 4.4).
- (c) Inspection of packaging (see 4.6).

4.3 First article inspection.

4.3.1 Examination. The first article degreaser shall be examined as specified in 4.5.1. Presence of one or more defects shall be cause for rejection of the preproduction model.

4.3.2 Tests. The first article degreaser shall be tested as specified in 4.5.2.1, through 4.5.2.3. Failure of any test shall be cause for rejection of the preproduction model.

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4.4 Quality conformance inspection.

4.4.1 Sampling. Sampling for examination and tests shall be in accordance with MIL-STD-105, Inspection Level II.

4.4.1.1 Lot. A lot shall be all degreasers of the same type offered for acceptance at one time.

4.4.2 Examination. Samples selected in accordance with 4.4.1 shall be examined for defects as specified in 4.5.1. AQL shall be 0.4 percent defective for major defects and 1.0 percent for minor defects.

4.4.3 Tests. Samples selected in accordance with 4.4.1 shall be tested as specified in 4.5.2.1 and 4.5.2.2. Failure of a test shall be cause for rejection.

4.5 Inspection procedure.

4.5.1 Examination. The degreaser shall be examined as specified herein for the following defects:

Major

101. Material not as specified.
102. Safety devices not as specified.
103. Maintainability not as specified.
104. Type I and Type II degreaser flush hose and nozzle not as specified.
105. Type I and Type II degreaser work shelves not as specified.
106. Motor and electrical system not as specified.
107. Filter not as specified.
108. Accessories missing or not as specified.
109. Identification and instruction plate not as specified.
110. Treatment and painting not as specified.
111. Workmanship not as specified.
112. Type I and Type II degreaser control valves not as specified.
113. Cover not as specified.
114. UL label missing.
115. Cabinet not as specified.
116. Base not as specified.

Minor

201. Technical publications missing or not as specified.
202. Repair parts and maintenance tools not as specified.

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4.5.2 Tests.

4.5.2.1 Operation. Fill degreaser with solution to the operating level, start and run the pump for 30 minutes and operate degreaser while pump is operating as follows:

- (1) Type I. Cut in air supply and agitate solution for 30 minutes.
- (2) Type II. Direct pump output of solution through agitation manifold only for 15 minutes and through both manifold and flush hose simultaneously for 15 minutes.
- (3) Type III. Operate with 200 pounds of load through 6 cycles while the pump is operating.

Any one of the following defects shall constitute failure of this test:

- (a) Leakage of solution in hydraulic system, soak tank, or cabinet seams.
- (b) Inability to place flush hose in a stationary position or to reach any section of the soak tank. Types I and II only.
- (c) Failure to have required agitation of the solution in hydraulic or mechanical Type II and Type III degreasers, or after supplying compressed air to pneumatic Type I degreasers.
- (d) Failure of the pump to circulate solution at a rate of 60 gpm total output and not less than 4 gpm through the flush hose when valved into the flow pattern for Type II degreasers, and at a rate of not less than 4 gpm through the flush hose for Type I degreasers.
- (e) Failure of the Type III degreaser to conform to 3.17.1.

4.5.2.2 Automatic release device. Place the cover in the fully open position. Heat the automatic release device until the cover is released. Measure and record temperatures throughout the test. Release of the cover below 130° F or failure of the cover to close at 160° F shall constitute failure of this test.

4.5.2.3 Load and shock test. The Type I and Type II degreaser shall be filled with solution to operating level and each shelf loaded with 150 pounds of weight. The load and shock test shall be conducted in accordance with method specified in Figure 1. The degreaser shall be traversed across a 1-inch depression (obstacle No. 1) at a 15 degree angle and at a minimum rate of travel of 25 feet per minute. The movement shall be that one caster at a time traverses the depression. The degreaser shall then be moved up and over obstacle No. 2 at a 15 degree

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slope 1 inch high in the same direction at a minimum travel of 25 feet per minute. Obstacles Nos. 1 and 2 shall be of hard wood, concrete or steel. Breakage or deformation of the casters or any part of the degreaser shall constitute failure of this test.

4.6 Inspection of packaging.

4.6.1 Preproduction pack inspection.

4.6.1.1 Examination. Examine the preproduction pack for the defects specified in 4.6.2.3. Presence of one or more defects shall be cause for rejection.

4.6.2 Quality conformance inspection of pack.

4.6.2.1 Unit of product. For the purpose of inspection, a completed pack prepared for shipment shall be considered a unit of product.

4.6.2.2 Sampling. Sampling for examination shall be in accordance with MIL-STD-105.

4.6.2.3 Examination. Samples selected in accordance with 4.6.2.2 shall be examined for the following defects. AQL shall be 2.5 percent defective.

- 117. Materials, methods, or containers not as specified. Each incorrect material, method or container shall constitute one defect.
- 118. Surfaces not coated with preservative as specified.
- 119. Casters not removed prior to packing.
- 120. Consolidation not as specified.
- 121. Strapping not as specified.
- 122. Drain valves not open for drainage.
- 123. Cushioning, blocking, and bracing not provided as specified.
- 124. Marking missing, illegible, incorrect, or incomplete.

5. PACKAGING

5.1 Preproduction pack. The contractor shall furnish a preproduction pack for examination within the time frame specified (see 6.2), to prove prior to starting production packaging that the applied preservation, packing, and marking comply with the packaging requirements of this specification. Examination shall be as specified in Section 4 and shall be subject to surveillance and approval by the Government (see 6.5). The preproduction pack may be prepared utilizing either the first article or a production degreaser. When the first article is utilized, any preservation and packing shall be removed by the contractor at no expense to the Government, when requested by the Government to facilitate comparison between the first article and production degreasers.

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5.2 Preservation. Preservation shall be Level A or Commercial as specified (see 6.2).

5.2.1 Level A.

5.2.1.1 Preservatives. Preservatives specified herein shall conform to the applicable specifications listed in and shall be applied in accordance with MIL-P-116.

5.2.1.2 Unpainted metal surfaces. Unless otherwise specified herein, unpainted exterior metal surfaces of the degreaser and accessories requiring the application of a contact preservative in accordance with MIL-P-116, shall be coated with Type P-1 preservative.

5.2.1.3 Pump and accessories. Interior surfaces of the pump, filter, and discharge hose shall be coated with P-10, Type I, Grade 30 preservative. The pump shall be actuated to assure coating of all interior surfaces and parts.

5.2.1.4 Electric cable. The electric cable shall be coiled to the minimum diameter and the coil shall be secured with evenly spaced wraps of tape conforming to PPP-T-60, Type IV.

5.2.1.5 Repair parts. Repair parts shall be preserved in accordance with MIL-P-116, method as applicable.

5.2.1.6 Maintenance and operating tools. Tools shall be preserved in accordance with PPP-P-40, Level A.

5.2.1.7 Technical publications. Technical publications shall be preserved in accordance with MIL-P-116, Method IC-1.

5.2.1.8 Casters and valves. Casters shall be removed and drain valves left open.

5.2.1.9 Consolidation. The loose components, removed casters, accessories, and the repair parts, tools, and publications shall be consolidated in a close-fitting box conforming to PPP-B-636, Grade W5c, style optional and placed in the degreaser cabinet and secured by blocking and cushioning to prevent movement or damage to the degreaser or to the items.

5.2.2 Commercial. Each complete degreaser shall be preserved in accordance with MIL-STD-1188.

5.3 Packing. Packing shall be Level A, Level B, or Commercial as specified (see 6.2).

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5.3.1 Level A. Each complete degreaser, preserved as specified in 5.2 shall be packed in a close-fitting box conforming to PPP-B-601, Overseas Type, Style A or B. Cushioning, blocking, and bracing shall be provided to prevent damage to the degreaser. Strapping shall conform to QQ-S-781, Class 1, Type I or IV, size as applicable. Unless otherwise specified (see 6.2), strapping shall be Finish B. When specified (see 6.2), strapping shall be Finish A.

5.3.2 Level B. Each complete degreaser preserved as specified in 5.2 shall be packed as specified for Level A, except the box shall be Domestic Type, style optional and the strapping shall be Finish A.

5.3.3 Commercial. Degreasers preserved as specified in 5.2 shall be packed in accordance with MIL-STD-1188.

5.4 Marking.

5.4.1 Military packaging. Marking shall be in accordance with MIL-STD-129.

5.4.2 Commercial packaging. Marking shall be in accordance with MIL-STD-1188.

6. NOTES

6.1 Intended use. The degreasers are intended for use in removing grease and dirt from machinery, castings, and parts associated with maintenance shop operation.

6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Type degreaser required (see 1.2).
- (c) Time frame required for submission of first article model (see 3.2).
- (d) Steel, if other than that specified (see 3.3.1).
- (e) Motor, if other than that specified (see 3.6).
- (f) Cable, if other than that specified (see 3.6.1).
- (g) Accessories required (see 3.8).
- (h) Parts baskets mesh size if other than as specified (see 3.8.1).
- (i) Color required (see 3.11).
- (j) Technical publications required (see 3.12).
- (k) Repair parts and maintenance tools required (see 3.13).
- (l) Time frame required for submission of the preproduction pack (see 5.1).
- (m) Degree of preservation and degree of packing required (see 5.2 and 5.3).
- (n) When Finish A strapping is required (see 5.3.1).

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6.3 First article. Any changes or deviations of production degreasers from the approved first article during production will be subject to the approval of the contracting officer. Approval of the first article will not relieve the contractor of his obligation to furnish degreasers conforming to this specification.

6.4 The contractor shall submit evidence acceptable to the contracting officer, that his degreasing tank has been tested by the methods in and conforms to NFPA No. 70.

6.5 Preproduction pack. Any changes or deviations of production packs from the approved preproduction pack will be subject to the approval of the contracting officer. Approval of the preproduction pack will not relieve the contractor of his obligation to preserve, pack, and mark the degreasers in accordance with this specification.

6.6 Recycled material. It is encouraged that recycled material be used when practical as long as it meets the requirements of the specification (see 3.3).

Custodians:

Army - ME

Navy - YD

Preparing activity:

Army - ME

Review activities:

Army - AL

Navy - SH

Project 4940-0404

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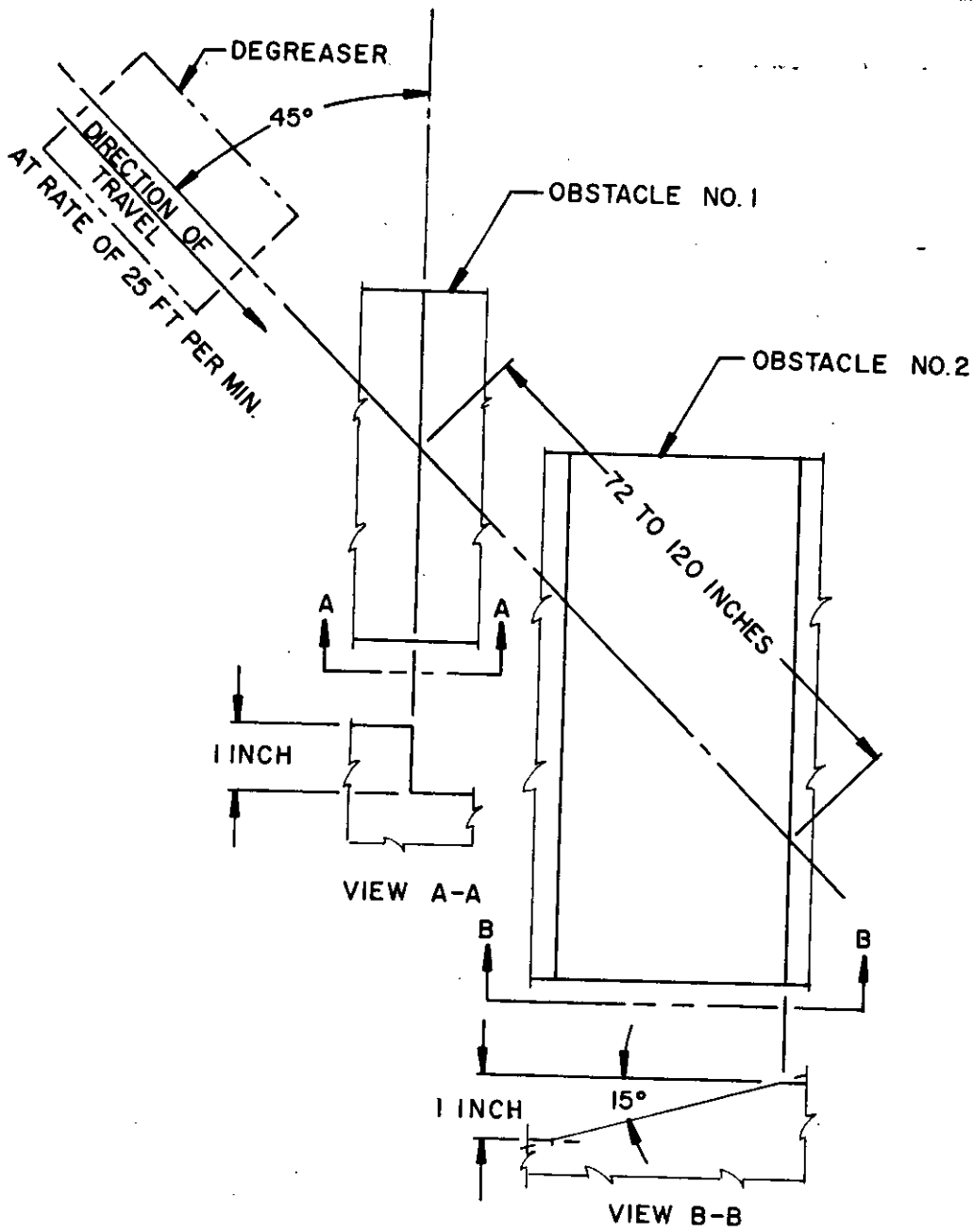


FIGURE 1. LOAD AND SHOCK TEST METHOD

CX1755

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL		OMB Approval No. 22-R255
<p>INSTRUCTIONS: The purpose of this form is to solicit beneficial comments which will help achieve procurement of suitable products at reasonable cost and minimum delay, or will otherwise enhance use of the document. DoD contractors, government activities, or manufacturers/vendors who are prospective suppliers of the product are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity.</p>		
DOCUMENT IDENTIFIER AND TITLE MIL-D-12491D Degreasers: Solvent, Tank Immersion-Type		
NAME OF ORGANIZATION AND ADDRESS	CONTRACT NUMBER	
	MATERIAL PROCURED UNDER A <input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT	
<p>1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? A. GIVE PARAGRAPH NUMBER AND WORDING.</p> <p>B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</p>		
2. COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID		
<p>3. IS THE DOCUMENT RESTRICTIVE? <input type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes", in what way?)</p>		
4. REMARKS		
SUBMITTED BY (Printed or typed name and address - Optional)		TELEPHONE NO.
		DATE

DD FORM 1426
1 JAN 72

REPLACES EDITION OF 1 JAN 66 WHICH MAY BE USED